

# NARRATIVE CRITERIA FOR NUTRIENTS



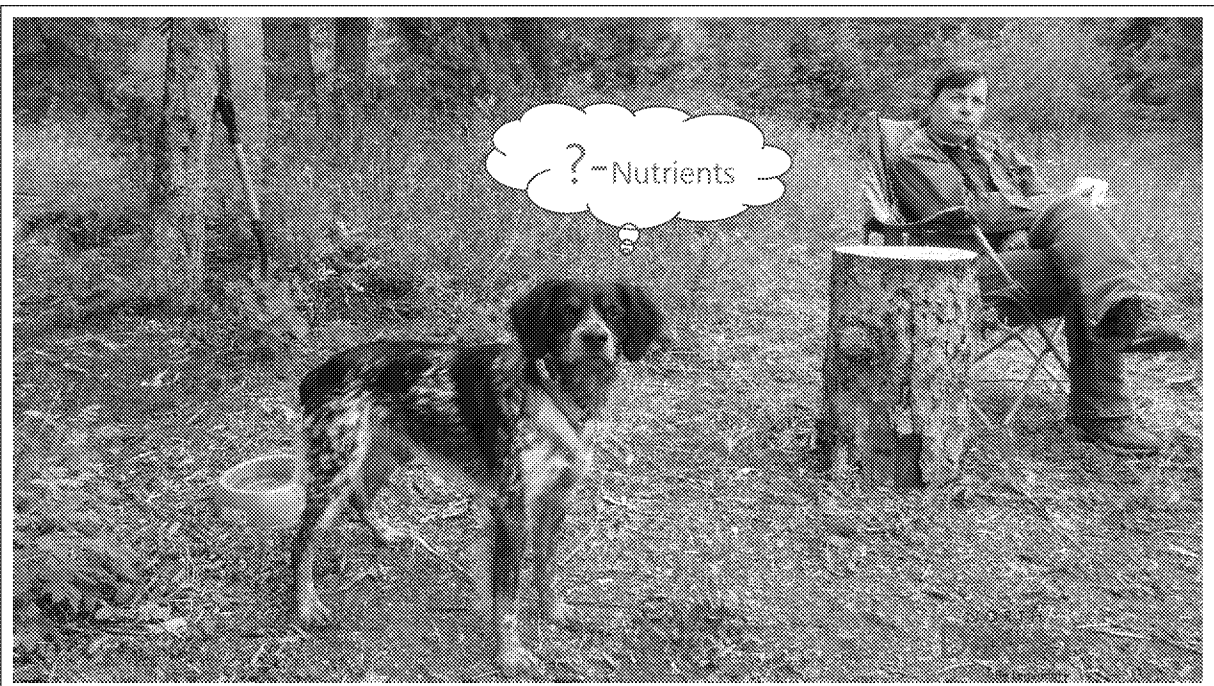
NORTH DAKOTA DEPARTMENT OF  
ENVIRONMENTAL QUALITY

NORTH  
**Dakota**  
Be Legendary.

## NARRATIVE CRITERIA

Free from nutrients<sup>1</sup> attributable to municipal, industrial, or other discharges or agricultural practices, in concentrations or loadings which will cause accelerated eutrophication<sup>2</sup> resulting in the objectionable growth of aquatic vegetation or algae or other impairments to the extent that it threatens public health or welfare or impairs present or future beneficial uses.





## ***"HOUSTON, WE HAVE A PROBLEM"***

- 50% U.S. streams have medium to high levels of N and P;
- Lakes and reservoirs – 5 million acres impaired;
- 78% of assessed coastal waters are impacted by nutrient pollution;
- Drinking water violations have doubled in the past 8 years due to N
- The occurrence and severity of nuisance algal blooms is on the rise; and
- Algal toxins have potentially serious human health and ecological effects.



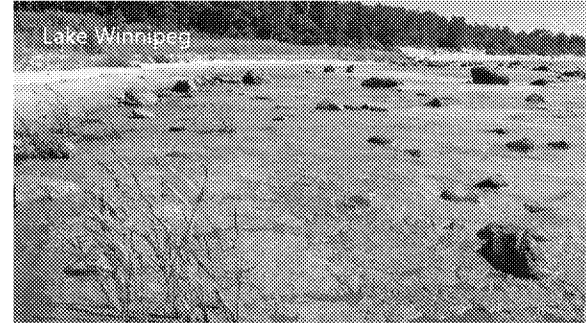
Chesapeake Bay



Lake Erie



Gulf of Mexico



Lake Winnipeg

# RIVERS

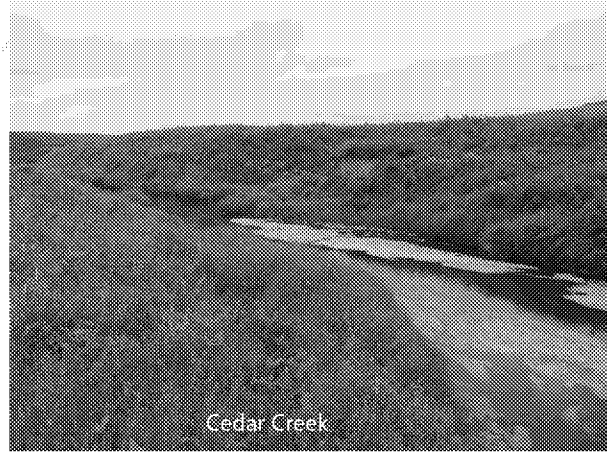
NUTRIENTS: 50 Miles

LOW DO: 410 Miles

BIOLOGICAL: 2,109 Miles



Haltstone Creek



Cedar Creek

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# LAKES

NUTRIENTS: 35,000 Acres

LOW DO: 6,600 Acres

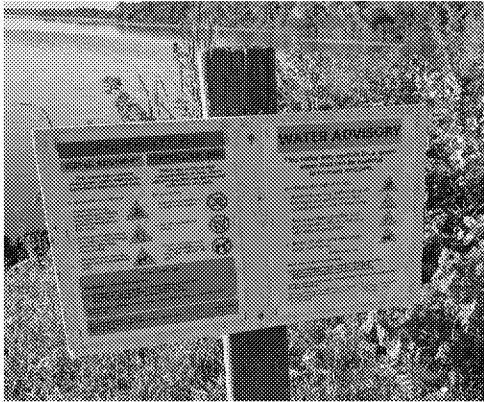


Lake Tschida



Homine Dam

2016: 15 Lakes  
2017: 16 Lakes  
2018: 19 Lakes  
2019: 18 + 3 Lakes



## Dog dies from blue green algae in Lake Ashtahbula

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## Dog dies from blue green algae in Lake Ashtabula



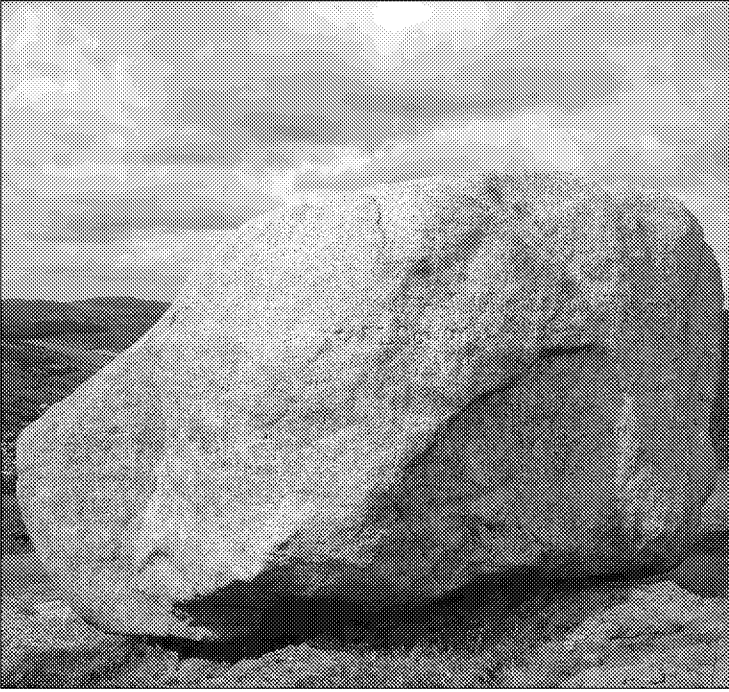
# NORTH DAKOTA DECIDES TO BEGIN A NUTRIENT REDUCTION STRATEGY





- ☐ Lawsuits regarding nutrients (e.g., criteria, TMDLs, permits)
- ☐ Ever increasing number of waterbodies with blue-green algal blooms and cyanotoxin risks
- ☐ Impacts to Lake Winnipeg in the Red River Basin and Gulf of Mexico in the Missouri River Basin
- ☐ Response to Nancy Stoner memo dated March 16, 2011



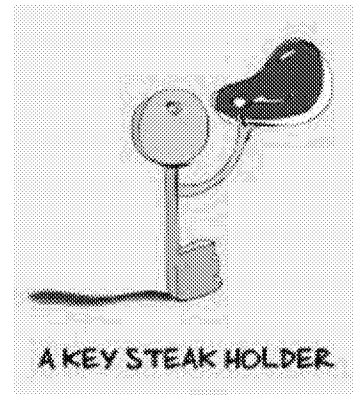


# -ER

EPA is a partner  
One-size-fits-not desirable/necessary  
Supports states rights to protect waters  
Technical and \$ Assistance  
Flexible  
Requires Key elements in state programs

# NUTRIENT REDUCTION STRATEGY

- ☐ INITIATED IN NOVEMBER 2012
- ☐ STAKEHOLDER DRIVEN
- ☐ 35 MEMBER PLANNING TEAM
- ☐ 5 WORKGROUPS
  - 1) Prioritization
  - 2) Criteria
  - 3) Point Sources
  - 4) Agricultural & Nonpoint Sources
  - 5) Education & Outreach



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# CORE COMPONENTS

- ❑ NUMERIC CRITERIA
- &
- ❑ NARRATIVE CRITERIA



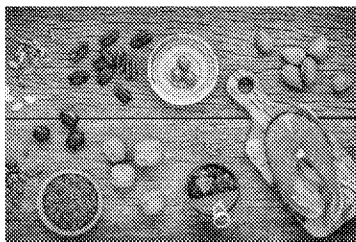
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NUTRIENT  
IMAGES



VEGAN  
CAVEMAN  
BALANCED  
ESSENTIAL

## DEFINITIONS ADDED

<sup>1</sup>Nutrients are defined as chemical elements, primarily nitrogen and phosphorus, which are critical to the growth of aquatic plants and animals.

<sup>2</sup>Eutrophication is defined as the process of enrichment of rivers, stream, lakes, reservoirs and wetlands with nutrients needed to maintain primary production.



## PUBLIC WAS UNHAPPY

Rebecca Jones

The DEQ is a “Rogue Agency” “Untrustworthy”  
“[Standards Written to]... “Accommodate a politician,  
developer, out-of-state corporations, friends, relatives,  
political donors etc, this is not acceptable and any reference  
to this type of activity must be removed.

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## PUBLIC MOSTLY UNHAPPY WITH DEFINITIONS

"...define nutrients and eutrophication. Both of these definitions avoid some of the real consequences of nitrogen and phosphorus entering bodies of water.

Eutrophication is the primary cause of "algae blooms" or "dead zones" in bodies of water



## PUBLIC MOSTLY UNHAPPY WITH DEFINITIONS

"Many states are trying to install buffer strips near rivers, streams, and lakes to prevent contamination of fertilizer nutrients, but your definitions lead to the conclusion that these elements are important to the bodies of water. These definitions must be removed from the document because they are misleading."



# PUBLIC MOSTLY UNHAPPY WITH DEFINITIONS

Rebecca L. Johnson

June 10, 2014

Stating that "*eutrophication means the process of enrichment of rivers, streams, lakes, reservoirs, and wetlands with nutrients needed to maintain primary production*" is avoiding the problem

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Wayne Stenehjem  
ATTORNEY GENERAL

STATE OF NORTH DAKOTA  
OFFICE OF ATTORNEY GENERAL

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OPINION

July 27, 2018



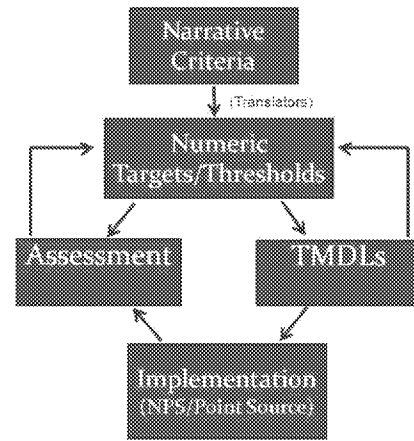
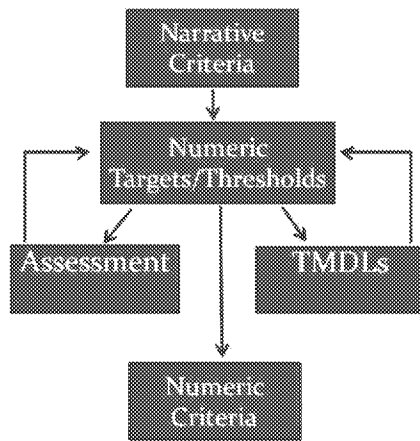
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

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